

Application No. 10/781,404
Docket No. 2003U038.US

Amendments to the Specification

[0016] One aspect of the invention is to a film comprising a polyethylene composition possessing a density of between 0.940 and 0.970 g/cm³, and an I₂₁ value of from 4 to 20 dg/min; characterized in that the polyethylene composition extrudes at a melt temperature, T_m, that satisfies the following relationship (I):

$$T_m \leq 235 - 3.3 (I_{21}) \quad (I)$$

wherein the polyethylene composition is extruded at a specific throughput of from 1 (0.454 kg/hr/rpm) to 1.5 lbs/hr/inch lbs/hr/rpm (0.681 kg/hr/rpm), and wherein the film has a gel count of less than 100. The value "I₂₁" is understood to be multiplied by the number "3.3". In another embodiment of (I), the melt temperature is described by the relationship T_m ≤ 240 - 3.3 (I₂₁); and in another embodiment, T_m ≤ 240 - 3.5 (I₂₁); and in yet another embodiment, T_m ≤ 235 - 3.5 (I₂₁). The melt temperature is the temperature at the downstream end of the mixing zone of the extruder used in processing the polyethylene composition to form the films of the invention. In this aspect of the invention, the melt temperatures are determined from an extrusion line suitable to form the film as described herein.